

Centre Height.

It's easy finding centre height on a plain lathe. It's a point on a plane, which is parallel to the bed of the lathe, and which passes through the centre of revolution of the mandrel.

On a rose engine with horizontal lateral action, centre height is a point on a plane, which is parallel to the plane of lateral movement, and which passes through the centre of revolution of the mandrel. The plane of rotation of the cutter must be accurately at centre height (even a slight angle can produce unwanted effects). The rubber should be at centre height. (This applies to the rubber for the lateral rosette. You can put the rubber for the swash plate anywhere convenient, provided it's relative position is fixed)

It all gets more “interesting” with a rocking headstock. Obviously, the height is constantly changing. This makes it more difficult to line-up an improvised rig. At least you don't have to worry about rubber height on a traditional rocking head machine. All you can do with the cutter, is set it at centre height, with the headstock vertical. Perhaps it's better to cut a pattern in the centre of the work, and adjust the height so the middle of the pattern is correct. I'm not sure if that amounts to the same thing – comments from someone with practical experience would be welcome.

When you're cutting OT patterns, using a fixed headstock, it's often convenient to drill the cylinder from above. In this case, your “centre line” is the vertical line generated by your topslide, when it passes through the centre of revolution. The axis of the work must be parallel to the sliderest, or you'll find strange errors creeping in.